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Promoting Agribusiness in Guatemala
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Summary

USAID's promotion of nontraditional agricultural exports (NTAEs) in Guatemala was highly successful. The Agency's goal was to raise the incomes of small farmers in the Guatemalan highlands by encouraging them to switch from traditional crops of corn and beans to higher value, more land- and labor-intensive crops. From 1978 to 1993, USAID contributed more than \$70 million for agricultural development in the region. Its assistance focused on strengthening cooperatives as credit agencies and marketing intermediaries, developing enterprises, building mini-irrigation and rural infrastructure, providing technical assistance, and promoting agricultural research and extension.

USAID's agricultural development strategy became more effective over time as the Agency learned from its implementation experience. The initial USAID project financed construction of regional agricultural marketing facilities. This infrastructure was expected to stimulate increased production of vegetables by small farmers by reducing marketing margins between the farmgate and urban centers, partly by reducing spoilage. Existing marketing channels proved to be much more efficient than USAID anticipated, however, and the one USAID-financed facility that was actually completed went bankrupt. A second early project encouraged construction of agribusiness processing facilities by newly formed cooperatives consisting of small farmers. Many of these cooperatives were unable to manage the complex problems of simultaneously promoting production of new crops and developing marketing capabilities.

From the mid-1980s, USAID reduced its reliance on interventions for specific agribusiness enterprises (usually cooperatives) and shifted to activities that together would develop agribusiness as a system. The creation of agricultural export trade associations, such as the Nontraditional Exporters' Guild and PROEXAG (a regional USAID promotion organization), was the most effective mechanism for developing such a system. These organizations concentrated on linking U.S. importers and private agribusiness and exporters in Guatemala and developing links between them and the small producers, either individually or organized into cooperatives or other farmer groups. This approach, by creating opportunities for many interdependent firms, helped create a strong, dynamic agribusiness sector. An assistance approach geared to helping individual firms would have been less effective.

Although the results from some of the activities were disappointing, overall, the Agency succeeded. NTAEs climbed from less than \$1 million in 1975 to \$105 million by 1992. And 20 percent of the income from nontraditional agricultural exports went to the poorest 25 percent of Guatemalans a dramatic improvement over their 3 percent share of gross national product (GNP). As many as 35,000 new jobs were created, shared equally between men and women, and the incomes of both men and women increased.

Background

An agribusiness sector supporting traditional agricultural exports has long existed in Guatemala. Between 1960 and 1980, five traditional exports beef, sugar, coffee, cotton, and bananas accounted for more than 70 percent of exports outside Central America. But prices for these commodities declined sharply after 1980 as a result of the collapse of world market for these products. Guatemala's formerly growing economy went into sharp decline and was pushed further into recession by internal political turmoil and regional developments.

Guatemala is a predominantly rural country with a rapidly growing population that is adding 3 percent yearly to its labor force. Both land ownership and income are skewed in Guatemala. A few large landowners earn very high incomes from the production of traditional export crops, while many small (mostly Indian) farmers produce only basic grains, especially corn and beans, supplementing their incomes by working on large farms. Historically, an estimated 500,000 people migrate seasonally from the highlands to the coast to harvest sugarcane, cotton, and coffee. Willingness to migrate has reflected the small farmers' low productivity on their own plots. If they could earn more by applying their labor to their own land, or that of their neighbors, they would remain in the highlands (see Box).

USAID's strategy of promoting NTAE crops by small farmers in the highlands was formed in part in response to this economic and demographic context. The higher value, labor- and land-intensive NTAEs would increase productivity and create jobs, thus addressing the two critical economic constraints facing Guatemala: scarcity of foreign exchange arising from the collapse of the traditional export sector and the skewed income distribution afflicting indigenous producers.

USAID Approach

USAID/Guatemala did not explicitly develop an agribusiness strategy, but such a strategy was implicit in much USAID activity in Guatemala from 1978 to 1992. USAID support had three distinct orientations.

First, it was directed primarily toward Guatemala's altiplano the central and western highlands whose population, primarily Indian, includes the poorest Guatemalans.

Second, it focused on crop diversification, promoting the

production and marketing of horticultural crops (fruits, vegetables, and ornamentals) over the traditional small-farmer crops of corn and beans.

Third, it supported the development and strengthening of producer cooperatives as the preferred means for marketing (storage, handling, process, and packaging) the new crops. Clearly, close attention would have to be paid to the marketing of diversified horticultural crops, which are perishable.

USAID's \$70 million agribusiness program was implemented over the period 1978 to 1994 through four umbrella projects: Small Farmer Marketing, Agribusiness Development, Cooperative Strengthening I and II, and Highlands Agricultural Development (Phases I, II, and III). Through these projects, USAID carried out an array of activities that included assistance for infrastructure development (roads, mini-irrigation, and so on) credit, technical assistance, and agricultural research and extension (see Figure). Considerable technical and financial resources were initially directed toward improving the operations and management capabilities of agricultural cooperatives.

Switching to an Export Strategy

The first project the Small Farmer Marketing Project was aimed primarily at increasing horticultural production for the domestic market. A regional wholesale buying center, Patzicia, was established in the highlands just as the economy began to decline. It soon became clear that there was only a limited domestic market for vegetables and that producing greater volume for the domestic market could well reduce income for small farmers.

One intent of the project was to establish regional buying centers with cooling and grading facilities that would stimulate increased small-farmer production by lowering the costs of marketing horticultural products. The buying centers were to be managed by CECOMERCA, a cooperative entity to be owned by the two major coop federations and by participating farmers. But instead of lowering the costs of marketing, the buying center at Patzicia (the first of three such stations planned, but the only one constructed) increased the costs of marketing. CECOMERCA's high costs and limited management capabilities made it unable either to export or to market domestically at a profit. A year after beginning operations, CECOMERCA was opening at 8 a.m., 2 hours later than its competitors and after the peak buying time. The Patzicia facility became a white elephant, unused throughout the 1980s.

The strategy of producing vegetables for the domestic market failed, and USAID turned to promoting horticultural production for the international market. World markets can easily absorb increased production of Guatemalan vegetables without reducing the price to Guatemalan producers, whereas Guatemala's domestic market would quickly become saturated, forcing prices down. Guatemala's exports subsequently grew rapidly, especially for vegetables. The biggest export categories are now snowpeas, broccoli, and cauliflower. Year by year, additional products have been added. Other products now

being exported include Brussels sprouts, okra, minivegetables, French beans, strawberries, and raspberries.

Support for Cooperatives

Support for cooperatives was one of three main components for a third project, Agribusiness Development. The other components included lending to agribusiness firms and establishing information and support services through the Nontraditional Exporters' Guild. Execution of these well-thought-out components was uneven. Although the financial component made some successful loans, a gap of 8 months between loan application and approval was common. The biggest problem with the cooperative component was the extent of assistance needed by each cooperative. It was assumed that cooperatives needed only occasional advice and guidance to produce fruits and vegetables for export, that cooperative members could with only slightly more effort come up with produce of export quality at costs that would yield profits, and that marketing infrastructure would not be a problem. These assumptions proved wrong. The only successful component of the Agribusiness Development project was the Nontraditional Exporters' Guild.

A fourth project, Cooperative Strengthening, was aimed at strengthening the cooperative movement in Guatemala by assisting the cooperative federations. Project implementation was carried out through FENACOAC, the country's principal credit union federation. The initial focus of the assistance was financial: to improve the financial management of the coops' credit functions and to recapitalize their resource base. This approach was successful in creating a strong network of profitable credit unions, but largely unsuccessful for the agricultural cooperatives. The strongest and most successful agricultural cooperative, Cuatro Pinos, did not belong to a federation and received only limited support.

Developing a Systems Approach

Over time, USAID shifted from focused support for agricultural coops to a broader, more eclectic approach one emphasizing less the support of specific agribusiness enterprises and more the tools for success of private agribusiness firms in general. An important component of this new effort was the promotion of agricultural export trade associations, which linked U.S. importers with private Guatemalan agribusinesses and exporters, and, within Guatemala, linked producers and marketers. Trade fairs and many other business support activities were undertaken, with substantial benefits both to small farmers and to well-educated agribusiness entrepreneurs.

The Highlands Agricultural Development project began as an infrastructure project intended to promote agricultural production in the highlands. The idea was to build and maintain access roads, to launch a pilot reforestation program, and to build small-scale irrigation and soil conservation systems. The project was later amended to include a substantial marketing component, implemented mainly through the Nontraditional Exporters' Guild. The project was revised in 1988 to consolidate the Mission's agricultural portfolio

into relatively few projects for ease of management and in recognition of the need for a systemwide approach to the sector.

The new idea was to highlight the interplay between production and marketing and to gear production systems to better respond to market opportunities. In 1989, environmental elements were added to address concerns about soil conservation, pesticide contamination, and agrochemical management in the highlands.

This project represented an advance toward a more sophisticated view of agricultural marketing problems. It sought to improve both on-farm production capabilities and marketing opportunities. It did so by providing better access to marketing information and by eliminating institutional obstacles to moving products into export markets. USAID support helped establish the Nontraditional Exporters' Guild as a competent institution that helped develop the sector. The guild developed an excellent market information system and became part of a national agribusiness system. It got involved in investment and marketing promotion, conducted many training programs, and lobbied to improve policies and institutions that supported nontraditional exports. It got technical information to firms and was an important forum for the exchange of information among Guatemalan businessmen, for joint efforts to improve the conditions exporters face in certain sectors, and for expanding contacts between foreign buyers and Guatemalan producers. The guild grew from 55 members in 1982 to nearly 1,000 in 1993.

The guild and PROEXAG (a USAID-funded Central American regional project) gave the sector more flexibility; they succeeded because they were able to continually experiment and adapt to changing circumstances. Experts could be used to resolve specific problems as they arose, and the nontraditional exports sector was increasingly viewed as a system. Under the systems approach, the Highlands Agricultural Development project gradually took on more activities, such as adapting the cultivation of marketable products to the highlands environment, providing training in produce marketing and pest management, and controlling pesticide residues.

The target for the Highlands Agricultural Development project were generally met. More than 300 mini-irrigation projects were completed, access road and watershed management project targets were exceeded, and the number of farmers producing nontraditional exports rose well above the project target of 15,000. Moreover, the project demonstrated the economic value of mini-irrigation projects in the highlands, an activity the Guatemalan Government is continuing.

Findings

Impact of Projects

The USAID program contributed to the growth of new agribusiness firms and benefited existing firms. During the program period, the number of agribusiness firms expanded dramatically, from 28 (mostly small exporters of ornamental plants and seeds) in 1980 to 161 in 1992. The growth in the number of firms also represents a dramatic increase in the diversity of firms, in both type and size. The

firms range from vertically integrated producers and processors to cooperatives to exporters who depend mainly on intermediaries or processors for export material. The diversity of exporting firms has spawned an equally diverse support industry providing specialized services to exporters, such as packaging firms and laboratories that test for pesticide residues.

Nearly all the agribusiness firms interviewed considered at least one USAID-funded activity to have significantly improved their business, and most reported several. Direct USAID assistance went mainly to existing firms, especially cooperatives, but indirect assistance was provided through PROEXAG and the Nontraditional Exporters' Guild, as well as through improvements in the policy and institutional regime. Assistance in these areas tends to be far more valuable to new firms because existing firms are likely to have already developed marketing channels, contact with buyers, and mechanisms for coping with shortcomings in the domestic policy environment.

The program, particularly the Nontraditional Exporters' Guild activities, improved the regulatory environment. Procedural requirements for exports and for foreign investment have been simplified by the creation of one stop windows. The Government has eliminated a government-owned shipping company and a national airline, privatized some export cargo handling, and liberalized the import regime. Most important, USAID projects have helped establish a vision of Guatemalan development that hinges on nontraditional exports. Linking the interests of small farmers and business elites is new in Guatemala; the agribusiness export and processing activities of the elites depend on production by small farmers, and the two groups now have common interests. According to press reports, the joint interest of elites and small farmers in maintaining U.S. trade preferences played an important role in the public outcry that overturned an attempted antidemocratic seizure of power in 1993.

Both exports and employment expanded rapidly in the USAID-supported sectors during the time of USAID support. Between 1975 and 1978, when the first project began, Guatemala's exports of fruits and vegetables had risen from \$0.4 million to \$2.7 million. But much of this increase was produced by a single firm, ALCOSA, which exported frozen okra, broccoli, and cauliflower. (ALCOSA had been established with assistance from an earlier USAID project.) By 1992 nontraditional exports had climbed to \$105 million (\$75 million of it to the United States), including \$80 million in fruits and vegetables and \$25 million in flowers, ornamental plants, and seeds.

When the agribusiness projects began in 1978, the nontraditional agricultural exports sector employed 4,000 workers. USAID projects were associated with a tenfold increase in employment, to roughly 40,000 full-time workers, in the 15 years considered by the assessment.

Benefits of NTAE growth were substantial for the poorest Guatemalans. NTAE's expansion has generated about \$115 million in

income for the bottom 25 percent of Guatemala's income distribution over the 15-year period. That is, 20 percent of NTAE income has gone to the poorest 25 percent of Guatemalans a dramatic improvement over their 3 percent share of GNP. More important, many of the new crops are grown best by very small producers.

Substantial flows of entrepreneurial income to small farmers has enabled thousands of small farm families to move out of extreme poverty. Rural wages are considerably higher where growth has been most rapid and concentrated.

Increases in employment and income have benefited women as well as men. Although wage discrimination against women still occurs on farms, on the whole women have benefited from a sense of empowerment as a result of development of the nontraditional exports sector. Many new income-earning opportunities for women have been created as well as increased chances for paid labor on farms. In the processing firms, the number of jobs that pay legal minimum wages has increased greatly for women, many of whom had never held such jobs before. Some women have become major earners, if not the major earner, of outside income in their households changing their power in relation to their husbands and fathers.

Environmental Concerns

Two environmental concerns have become issues as a result of growth in NTAE exports: pesticide residues and land degradation. The movement to NTAEs has increased agrochemical use by small farmers. Some have argued that this is likely to lead to the misuse of pesticides, endangering both crops and the health of small farmers. The issue cuts both ways. The desire for high-quality products encourages the use of pesticides, but the substantial cost associated with rejection of products by U.S. Government officials encourages greater awareness of appropriate use of pesticides. Processors and exporters have become directly involved with producers in ensuring proper pesticide use. In some cases the processors supply the pesticide to the farmers and contractually prohibit the use of any other product. Concern with pesticide residuals does not extend to horticultural products for the domestic and regional markets.

Deforestation and land degradation are also major environmental concerns in Guatemala, and some fear that the rise in NTAEs contributes to these concerns. The initial observation of the team was that, if anything, promotion of NTAEs, by increasing the income of small farmers and creating jobs in the altiplano, is reducing migration to uncleared areas in northern Guatemala. Moreover, the adoption of more productive techniques should also reduce pressures on agricultural land. But both issues pesticide use and land degradation are the subject of continued debate and require further study.

Cost-Effectiveness of Projects

The economic rate of return (EER) on USAID's \$70 million investment was more than 20 percent. A simplified approach to determining the

costs and benefits of the USAID investment in Guatemala was to take the dollar cost of USAID assistance and compare it with the increase in NTAE exports from Guatemala, taking 1978 as base year. The team's calculations showed that if only about 20 percent of the increase in Guatemala's NTAEs was attributed to USAID assistance, the EER would still be about 20 percent, a very respectable return. But given the pervasiveness of USAID's involvement in every aspect of the development of Guatemala's NTAE sector, the EER is likely to be much higher.

Sustainability

Guatemala's NTAE sector is vibrant and dynamic, with good prospects for continued growth. USAID's assistance facilitated more rapid growth. If macroeconomic and sectoral policies remain sound, agribusiness exports are likely to continue growing without USAID support but USAID support will speed growth and direct more benefits to poor Guatemalans.

The Nontraditional Exporters' Guild is a highly competent, valuable enterprise whose technical capabilities make it competitive in bidding to implement donor projects. PROEXAG has no prospect for survival without USAID funding. The agricultural cooperative movement has little to show for significant USAID funding but debt. USAID has not developed a mechanism for bringing these institutions to solvency or for establishing long-term sustainability.

Lessons Learned

The most effective mechanism for promoting agribusiness in Guatemala was to help agribusiness develop as a system. Both the Nontraditional Exporters' Guild and PROEXAG helped develop agribusiness systems by providing the knowledge firms needed and by eliminating institutional obstacles to agribusiness. Creating opportunities for many interdependent firms helped create a strong, dynamic sector. An assistance approach geared to helping individual firms would have been less effective.

USAID was wrong to assume in 1978 that the marketing structure in Guatemala was inefficient and that it could modernize that structure with relative ease. The agribusiness sector is a dynamic collection of economic activities, and USAID project designers should not try to forecast or decide the structure or functions of the firms that make it up. The best way to establish a vibrant, competitive sector is to let sector development be a process of discovery in which firms experiment with different options, such as contract farming and vertical integration.

Some nontraditional export crops were much better than others at producing a greater share of income for the poor, but all nontraditional crops were pro poor in the sense that poor people's share of the income generated was proportionately higher than their share of GNP.

Contract farming in which processors provide growers with credit and technical assistance in exchange for fixed-price delivery of

the harvest has considerable potential for raising small farmers' incomes. In many cases it would have been better for USAID to have encouraged contract mechanisms between cooperatives and processors rather than to have encouraged cooperative ownership of processing facilities. The most successful small-farmer export cooperative, Cuatro Pinos, began processing for export only after years of acting as an intermediary between private processors and its members. That experience allowed the cooperative to gain considerable expertise and sophistication before it began its own processing.

This Highlights summarizes the field evaluation Assessment of USAID's Agribusiness Programs: Guatemala Case Study, CDIE Working Paper (forthcoming), by James W. Fox (USAID), Kenneth Swanberg (Development Alternatives Inc.), and Thomas Mehen (USAID). The case study is part of a seven-country assessment, directed by Krishna Kumar, of USAID's agribusiness program. The working paper can be ordered from the DISC, 1611 North Kent Street, Suite 200, Arlington, VA 22209-2111, telephone (703) 351-4006; fax (703) 351-4039.